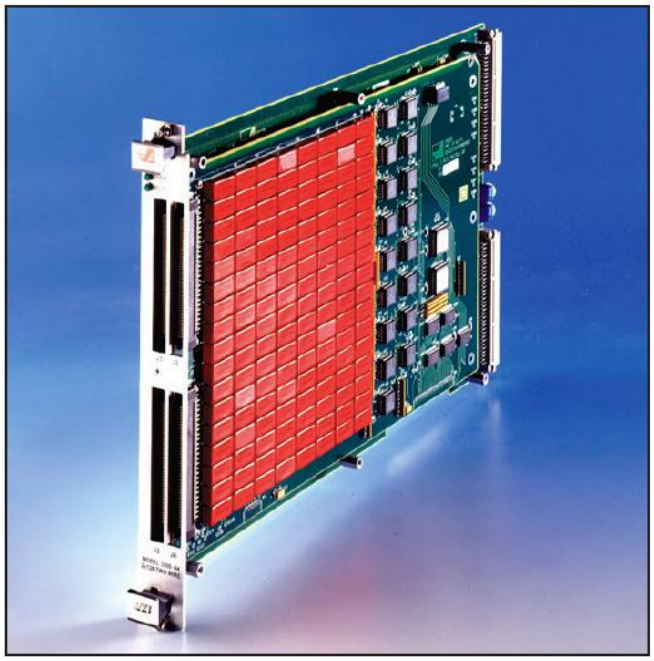
Model 3000-44
2(2x64) 2-wire Matrix
90400650



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Regulatory compliance information

This product complies with the essential requirements of the following applicable European Directives, and carries the CE mark accordingly.

89/336/EEC and 73/23/EEC	EMC Directive and Low Voltage Directive
EN61010-1 (1993)	Electrical Safety
EN61326-1 (1997)	EMC – Emissions and Immunity
Manufacturer's Name:	**Manufacturer's Address**
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Type of Equipment:	**Model Series Number**
Switching Module	3000-44

Declaration of Conformity on file. Contact Giga-tronics at the following;

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Record of Changes to This Manual

Use the table below to maintain a permanent record of changes to this document. Corrected replacement pages are issued as Technical Publication Change Instructions (TPCI). When you are issued a TPCI, do the following:

1. Insert the TPCI at the front of the manual binder.
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3. Replace the page(s) removed in the previous step with the corrected page(s).
4. Record the changes in the table below.

TPCI Number	TPCI Issue Date	Date Entered	Comments

Revision History			
Revision	**Description of Change**	**Chg Order #**	**Approved By**
A	Initial Release		
B	Updated		
C	Updated		
D	Updated		
E	Updated 11/10		
F	Reformatted 3/12		RCW

Contents

Chapter 1 **Introduction**

1.1 Safety and Manual Conventions

This manual contains conventions regarding safety and equipment usage as described below.

1.1.1 Product Reference

Throughout this manual, the term “Common Core Switching Platform, Series 8800” refers to all models of within the series, unless otherwise specified.

1.1.2 Personal Safety Alert

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

1.1.3 Equipment Safety Alert

CAUTION: Indicates a situation which can damage or adversely affect the product or associated equipment.

1.1.4 Notes

Notes are denoted and used as follows:

NOTE: Highlights or amplifies an essential operating or maintenance procedure, practice, condition or statement.

1.1.5 Electrical Safety Precautions

Any servicing instructions are for use by service-trained personnel only. To avoid personal injury, do not perform any service unless you are qualified to do so.

For continued protections against fire hazard, replace the AC line fuse only with a fuse of the same current rating and type. Do not use repaired fuses or short circuited fuse holders.

Chapter 2 Configuration Table

Module 3000-44, (2x128) Standard Module

PL90400650
Assy 90400650

Module 3000-44 Option 1, (2x128) Module, also known as Option "M", has two additional inputs on DB

PL90400650-101
Assy 90400650-101

Module 3000-44, 2(2x64) Module

PL90400650-001
Assy 90400650-001

Schematics

MB PL85003420
Assy 85003420
SCH85003420

DB PL85003430
Assy 85003430
SCH85003430

Chapter 3 **Functional Description**

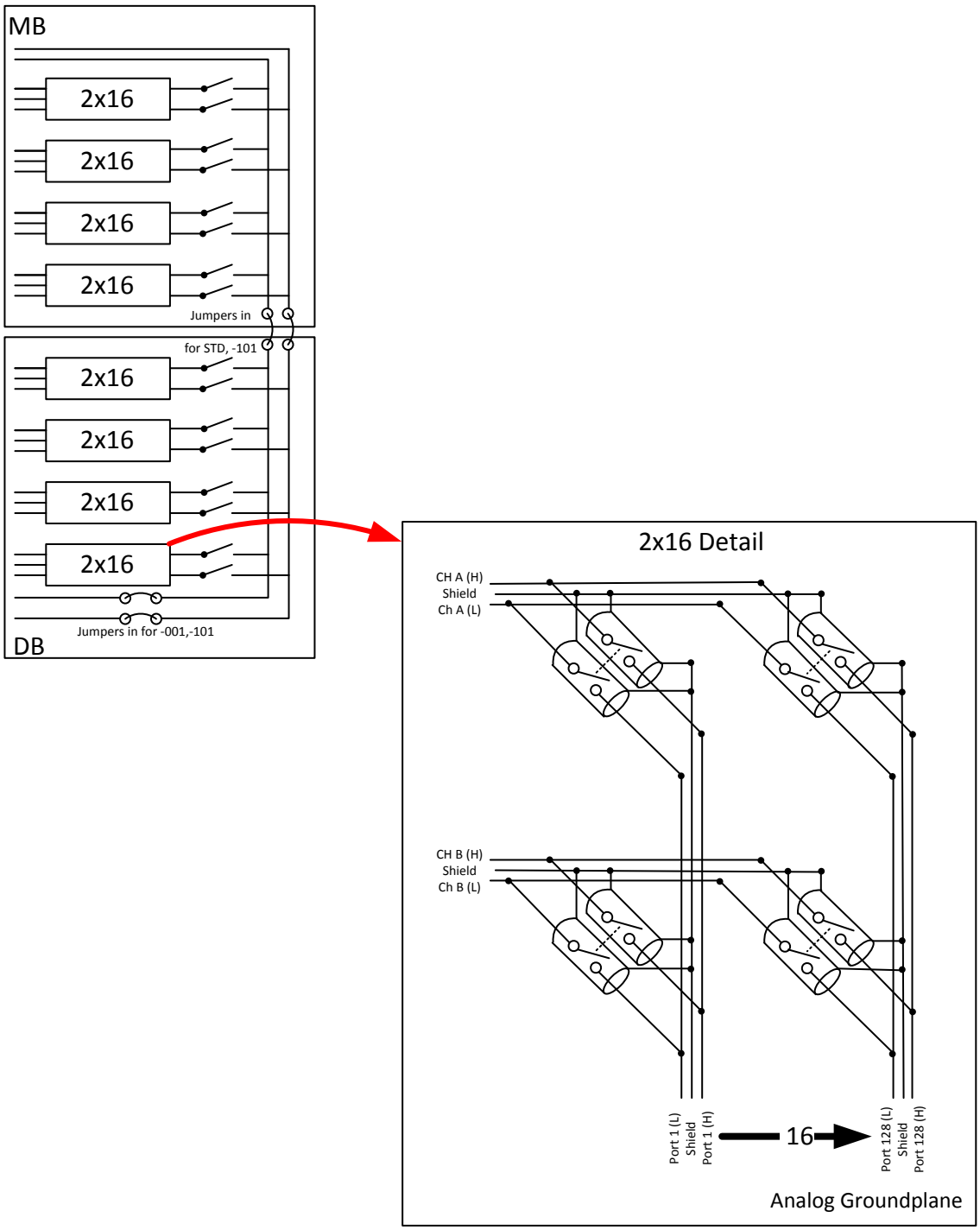
3.1 Introduction

This User Guide provides a basic description of the 3000-44 2 x 128 Coaxial Switch Matrix module. Also included are installation and input connection procedures, programming information, service and maintenance information.

3.2 General Description

This module is a dual wire 2 x 128 matrix switch. Each relay in the module is individually controlled. Any and all relays can be closed. The module is designed to support precision testing designs such as ATE. This module is ideal for high quality multi-channel measurement or stimulus switching. Each relay is coaxially shielded to a separate analog ground plane. The Interface and mechanical construction meets the specification of the VXIbus System Specification, rev 1.2 through 1.4. This module also has a factory option for two independent 64 x 2 matricies.

Chapter 4 **Block Diagram**

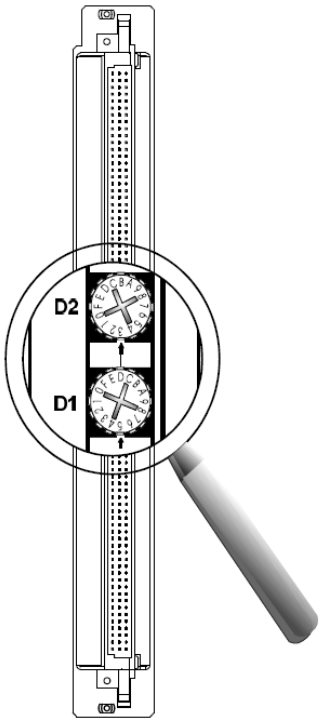


Chapter 5 Controls and Indicators

The following controls and indicators are provided to select and display the functions of the ASCOR 3000-44 Module's operating environment.

5.1 VXI Logical Address

The Logical Address Switch is dual circular switches, D1 and D2 which are located at the rear of the module. The address can be set to any value between 1 and 255 (decimal) or 1 and FF (hexadecimal), (address 0 is reserved for the resource manager). However, the Module fully supports Dynamic Configuration as defined in ***Section F of the VXI specification,*** address 255 (FF) should be selected only if the Resource Manager also supports Dynamic Configuration.



5.2 LEDs

The following LEDs are visible at the Module's front panel to indicate the

status of the module's operation:

5.2.1 "BUS" LED

This green color LED is normally off and will flash on when the module is addressed by the system.

5.2.2 "PWR" LED

This red color LED is normally on when the Module is Powered up.

Chapter 6 Internal Settings

The following items are inside the module and can be reached by removing the side cover.

6.1 Fuse

The ASCOR VXI 3000-44 uses a 10 Amp fuse in the +5 Volt line and is located on the Mother Board (MB) assembly.

6.2 VXI_{bus} Interrupt Level Selection

The VXIbus interrupt level is set with three bits in the “3Eh” register.

See the section on “A16 ADDRESS SPACE REGISTER DESCRIPTION”.

The interrupt level is factory set to “no interrupt”.

Chapter 7 **Specifications**

Electrical:

DC parameters:

Switching voltage:	200 Volts
Switching current:	0.5 Amps
Carry current:	1.5 Amps
Contact rating:	10 Watts

AC Parameters:

Bandwidth:	45MHz minimum & 70MHz Typical, into 50Ω, each line with respect to shield

Mechanical:

Thickness:	1.200 inches
Width:	10.317 inches
Length:	13.78 inches
Weight:	4 lbs. 10 oz.

Environmental Specifications

Temperature:	
Operating:	0º to 55ºC
Storage:	- 40º to 75ºC
Relative Humidity:	
Operating:	0 to 90% non-condensing
Storage:	0 to 95% non-condensing

Chapter 9 **Register Map**

9.1 Functional Description

This module is a universal input/output multi-wire matrix switch. It contains eight 2x16 dual wire matrices connected together through isolation relays. Isolation circuits are provided to maintain signal performance by disconnecting unused sections of the matrices.

9.2 Programming

The Model 3000-44 a VXI register based module. The switch paths are controlled via VXIMAX™ which is the 16/32 bit data controller. The Model 3000-44 can be programmed in 16 bit or 32 bit wide data. Through your VXI controller, write the data to the appropriate register as shown on the register map for the relay or relays in the register that is being closed. When the data bit is true, the relay chosen will be closed. The state of the relays in a register can be determined by reading the desired register. The data read back represents the value at the coil of the relay. This allows verification that the program register has correctly controlled the relay coil.

The following register maps are shown in two configurations: 16 bit mode and 32 bit mode. In each section,16 bit and 32 bit, the register map is organized to show the relay designation in each register. It is followed by the register's functionality and the path connections to the front panel.

Programming of the Model 3000-44 is very simple. The module is organized into 4 pins per register in16 bit mode or 8 pins per register in 32 bit mode. A pin is controlled by a group of 4 bits within the program registers. These bits select one or more the the two available channels. Typically, only one channel is assigned to a pin for optimum performance. Whenever a pin is selected in a group, the appropriate channel isolation relay must be closed to complete the path. The isolation relays is the last register in the mother board and daughter board.

For example:

To close pin 1 to channel A and to close pin 2 to channel B would set the following register:

Register 8000h: Control pins 1- 4

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

Register 8010h: Controls the isolation relays

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

A16 Address Space Register Description

Offset	Value
00h	CFB5 hex C = Register based, A16/A24 FB5 = ASCOR Manufacturer ID
02h	7F2C hex 7 = 10,000 hex space in the A24 Address space F2C = HV Discrete Driver/Receiver VXI Module number
04h	FFFC hex (typical after running Resource Manager) In order to reset the module: read this address, set bit 0 high, then set bit 0 low without altering the other bits.

Control	Bit	
3Eh	0	Low true output enable to the coil driver ICs.
	1	When low enables read back of the coil state. When high enables read back of the data registers.
	2	Leave set to 0, reserved by Ascor.
	3	Interrupt bit 0 (LSB) <_> Used to set the Module IRQ Level:
	4	Interrupt bit 1 <_>0 = No Interrupts
	5	Interrupt bit 2 (MSB) <_>1-7 = IRQ1-IRQ7
	6-7	Don't Care.
	8-15	Mask Off.

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD
PCB NUMBER: 85003420

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8000h	8000h-lower	K16	K15	K14	K13	K12	K11	K10	K9

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8000h	8000h-lower	K8	K7	K6	K5	K4	K3	K2	K1

MSB

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
8002h	8000h-upper	K32	K31	K30	K29	K28	K27	K26	K25

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
8002h	8000h-upper	K24	K23	K22	K21	K20	K19	K18	K17

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8004h	8004h-lower	K48	K47	K46	K45	K44	K43	K42	K41

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8004h	8004h-lower	K40	K39	K38	K37	K36	K35	K34	K33

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
8006h	8004h-upper	K64	K63	K62	K61	K60	K59	K58	K57

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
8006h	8004h-upper	K56	K55	K54	K53	K52	K51	K50	K49

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD
PCB NUMBER: 85003420

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8008h	8008h-lower	K80	K79	K78	K77	K76	K75	K74	K73

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8008h	8008h-lower	K72	K71	K70	K69	K68	K67	K66	K65

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
800ah	8008h-upper	K96	K95	K94	K93	K92	K91	K90	K89

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
800ah	8008h-upper	K88	K87	K86	K85	K84	K83	K82	K81

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
800ch	800ch-lower	K112	K111	K110	K109	K108	K107	K106	K105

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
800ch	800ch-lower	K104	K103	K102	K101	K100	K99	K98	K97

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
800eh	800ch-upper	K128	K127	K126	K125	K124	K123	K122	K121

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
800eh	800ch-upper	K120	K119	K118	K117	K116	K115	K114	K113

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD
PCB NUMBER: 85003420

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8010h	8010h-lower	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8010h	8010h-lower	K136	K135	K134	K133	K132	K131	K130	K129

Chapter 10 **Connector Pin Configuration**

Typical pin configuration for connectors J1, J2, J3 and J4

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD
PCB NUMBER: 85003420
REGISTER: 8000h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 1-8, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 1	J1 - 100, 98, 96	K1	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 1	J1 - 100, 98, 96	K2	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 2	J1 - 99, 97, 95	K3	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 2	J1 - 99, 97, 95	K4	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 3	J1 - 94, 92, 90	K5	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 3	J1 - 94, 92, 90	K6	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 4	J1 - 93, 91, 89	K7	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 4	J1 - 93, 91, 89	K8	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 5	J1 - 88, 86, 84	K9	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 5	J1 - 88, 86, 84	K10	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 6	J1 - 87, 85, 83	K11	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 6	J1 - 87, 85, 83	K12	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 7	J1 - 82, 80, 78	K13	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 7	J1 - 82, 80, 78	K14	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 8	J1 - 81, 79, 77	K15	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 8	J1 - 81, 79, 77	K16	Chan B is J2 - 7, 9, 5

REGISTER: 8000h, MODE: 32 bit, BITS 16-31
REGISTER: 8002h, MODE: 16
FUNCTION: Control Matrix Pins 9-16, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 9	J1 - 76, 74, 72	K17	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 9	J1 - 76, 74, 72	K18	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 10	J1 - 75, 73, 71	K19	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 10	J1 - 75, 73, 71	K20	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 11	J1 - 70, 68, 66	K21	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 11	J1 - 70, 68, 66	K22	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 12	J1 - 69, 67, 65	K23	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 12	J1 - 69, 67, 65	K24	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 13	J1 - 64, 62, 60	K25	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 13	J1 - 64, 62, 60	K26	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 14	J1 - 63, 61, 59	K27	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 14	J1 - 63, 61, 59	K28	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 15	J1 - 58, 56, 54	K29	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 15	J1 - 58, 56, 54	K30	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 16	J1 - 57, 55, 53	K31	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 16	J1 - 57, 55, 53	K32	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD

PCB NUMBER: 85003420
REGISTER: 8004h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 17-24, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 17	J1 - 52, 50, 48	K33	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 17	J1 - 52, 50, 48	K34	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 18	J1 - 51, 49, 47	K35	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 18	J1 - 51, 49, 47	K36	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 19	J1 - 46, 44, 42	K37	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 19	J1 - 46, 44, 42	K38	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 20	J1 - 45, 43, 41	K39	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 20	J1 - 45, 43, 41	K40	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 21	J1 - 40, 38, 36	K41	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 21	J1 - 40, 38, 36	K42	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 22	J1 - 39, 37, 35	K43	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 22	J1 - 39, 37, 35	K44	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 23	J1 - 34, 32, 30	K45	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 23	J1 - 34, 32, 30	K46	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 24	J1 - 33, 31, 29	K47	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 24	J1 - 33, 31, 29	K48	Chan B is J2 - 7, 9, 5

REGISTER: 8004h, MODE: 32 bit, BITS 16-31
REGISTER: 8006h, MODE: 16
FUNCTION: Control Matrix Pins 25-32, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 25	J1 - 28, 26, 24	K49	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 25	J1 - 28, 26, 24	K50	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 26	J1 - 27, 25, 23	K51	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 26	J1 - 27, 25, 23	K52	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 27	J1 - 22, 20, 18	K53	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 27	J1 - 22, 20, 18	K54	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 28	J1 - 21, 19, 17	K55	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 28	J1 - 21, 19, 17	K56	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 29	J1 - 16, 14, 12	K57	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 29	J1 - 16, 14, 12	K58	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 30	J1 - 15, 13, 11	K59	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 30	J1 - 15, 13, 11	K60	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 31	J1 - 10, 8, 6	K61	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 31	J1 - 10, 8, 6	K62	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 32	J1 - 9, 7, 5	K63	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 32	J1 - 9, 7, 5	K64	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD

PCB NUMBER: 85003420
REGISTER: 8008h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 33-40, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 33	J1 - 4, 2, 6	K65	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 33	J1 - 4, 2, 6	K66	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 34	J1 - 3, 1, 5	K67	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 34	J1 - 3, 1, 5	K68	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 35	J2 - 100, 98, 96	K69	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 35	J2 - 100, 98, 96	K70	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 36	J2 - 99, 97, 95	K71	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 36	J2 - 99, 97, 95	K72	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 37	J2 - 94, 92, 90	K73	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 37	J2 - 94, 92, 90	K74	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 38	J2 - 93, 91, 89	K75	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 38	J2 - 93, 91, 89	K76	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 39	J2 - 88, 86, 84	K77	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 39	J2 - 88, 86, 84	K78	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 40	J2 - 87, 85, 83	K79	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 40	J2 - 87, 85, 83	K80	Chan B is J2 - 7, 9, 5

REGISTER: 8008h, MODE: 32 bit, BITS 16-31
REGISTER: 800ah, MODE: 16
FUNCTION: Control Matrix Pins 41-48, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 41	J2 - 82, 80, 78	K81	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 41	J2 - 82, 80, 78	K82	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 42	J2 - 81, 79, 77	K83	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 42	J2 - 81, 79, 77	K84	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 43	J2 - 76, 74, 72	K85	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 43	J2 - 76, 74, 72	K86	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 44	J2 - 75, 73, 71	K87	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 44	J2 - 75, 73, 71	K88	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 45	J2 - 70, 68, 66	K89	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 45	J2 - 70, 68, 66	K90	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 46	J2 - 69, 67, 65	K91	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 46	J2 - 69, 67, 65	K92	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 47	J2 - 64, 62, 60	K93	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 47	J2 - 64, 62, 60	K94	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 48	J2 - 63, 61, 59	K95	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 48	J2 - 63, 61, 59	K96	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD

PCB NUMBER: 85003420
REGISTER: 800ch, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 49-56, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 49	J2 - 58, 56, 54	K97	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 49	J2 - 58, 56, 54	K98	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 50	J2 - 57, 55, 53	K99	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 50	J2 - 57, 55, 53	K100	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 51	J2 - 52, 50, 48	K101	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 51	J2 - 52, 50, 48	K102	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 52	J2 - 51, 49, 47	K103	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 52	J2 - 51, 49, 47	K104	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 53	J2 - 46, 44, 42	K105	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 53	J2 - 46, 44, 42	K106	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 54	J2 - 45, 43, 41	K107	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 54	J2 - 45, 43, 41	K108	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 55	J2 - 40, 38, 36	K109	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 55	J2 - 40, 38, 36	K110	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 56	J2 - 39, 37, 35	K111	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 56	J2 - 39, 37, 35	K112	Chan B is J2 - 7, 9, 5

REGISTER: 800ch, MODE: 32 bit, BITS 16-31
REGISTER: 800eh, MODE: 16
FUNCTION: Control Matrix Pins 57-64, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 57	J2 - 34, 32, 30	K113	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 57	J2 - 34, 32, 30	K114	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 58	J2 - 33, 31, 29	K115	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 58	J2 - 33, 31, 29	K116	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 59	J2 - 28, 26, 24	K117	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 59	J2 - 28, 26, 24	K118	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 60	J2 - 27, 25, 23	K119	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 60	J2 - 27, 25, 23	K120	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 61	J2 - 22, 20, 18	K121	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 61	J2 - 22, 20, 18	K122	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 62	J2 - 21, 19, 17	K123	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 62	J2 - 21, 19, 17	K124	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 63	J2 - 16, 14, 12	K125	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 63	J2 - 16, 14, 12	K126	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 64	J2 - 15, 13, 11	K127	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 64	J2 - 15, 13, 11	K128	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, MOTHER BOARD

PCB NUMBER: 85003420
REGISTER: 8010h, MODE: 16/32 bit
FUNCTION: Control Matrix, Isolation relays, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan A, Grp 1	Chan A is J2 - 8, 10, 6	K129	Chan A is J2 - 8, 10, 6
1	Isolution Chan B, Grp 1	Chan B is J2 - 7, 9, 5	K130	Chan B is J2 - 7, 9, 5
2	Isolation Chan A, Grp 2	Chan A is J2 - 8, 10, 6	K131	Chan A is J2 - 8, 10, 6
3	Isolation Chan B, Grp 2	Chan B is J2 - 7, 9, 5	K132	Chan B is J2 - 7, 9, 5
4	Isolation Chan A, Grp 3	Chan A is J2 - 8, 10, 6	K133	Chan A is J2 - 8, 10, 6
5	Isolation Chan B, Grp 3	Chan B is J2 - 7, 9, 5	K134	Chan B is J2 - 7, 9, 5
6	Isolation Chan A, Grp 4	Chan A is J2 - 8, 10, 6	K135	Chan A is J2 - 8, 10, 6
7	Isolation Chan B, Grp 4	Chan B is J2 - 7, 9, 5	K136	Chan B is J2 - 7, 9, 5
8				
9				
10				
11				
12				
13				
14				
15				

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1
PCB NUMBER: 85003430

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8020h	8020h-lower	K16	K15	K14	K13	K12	K11	K10	K9

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8020h	8020h-lower	K8	K7	K6	K5	K4	K3	K2	K1

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
8022h	8020h-upper	K32	K31	K30	K29	K28	K27	K26	K25

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
8022h	8020h-upper	K24	K23	K22	K21	K20	K19	K18	K17

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8024h	8024h-lower	K48	K47	K46	K45	K44	K43	K42	K41

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8024h	8024h-lower	K40	K39	K38	K37	K36	K35	K34	K33

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
8026h	8024h-upper	K64	K63	K62	K61	K60	K59	K58	K57

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
8026h	8024h-upper	K56	K55	K54	K53	K52	K51	K50	K49

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1
PCB NUMBER: 85003430

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8028h	8028h-lower	K80	K79	K78	K77	K76	K75	K74	K73

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8028h	8028h-lower	K72	K71	K70	K69	K68	K67	K66	K65

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
802ah	8028h-upper	K96	K95	K94	K93	K92	K91	K90	K89

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
802ah	8028h-upper	K88	K87	K86	K85	K84	K83	K82	K81

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
802ch	802ch-lower	K112	K111	K110	K109	K108	K107	K106	K105

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
802ch	802ch-lower	K104	K103	K102	K101	K100	K99	K98	K97

MSB(MSB)

MODE: 16	**MODE: 32**	**15(31)**	**14(30)**	**13(29)**	**12(28)**	**11(27)**	**10(26)**	**9(25)**	**8(24)**
802eh	802ch-upper	K128	K127	K126	K125	K124	K123	K122	K121

LSB

MODE: 16	**MODE: 32**	**7(23)**	**6(22)**	**5(21)**	**4(20)**	**3(19)**	**2(18)**	**1(17)**	**0(16)**
802eh	802ch-upper	K120	K119	K118	K117	K116	K115	K114	K113

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1
PCB NUMBER: 85003430

MSB

MODE: 16	**MODE: 32**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**
8030h	8030h-lower	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LSB

MODE: 16	**MODE: 32**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
8030h	8030h-lower	K136	K135	K134	K133	K132	K131	K130	K129

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 8020h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 65-72, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 65	J3 - 100, 98, 96	K1	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 65	J3 - 100, 98, 96	K2	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 66	J3 - 99, 97, 95	K3	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 66	J3 - 99, 97, 95	K4	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 67	J3 - 94, 92, 90	K5	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 67	J3 - 94, 92, 90	K6	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 68	J3 - 93, 91, 89	K7	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 68	J3 - 93, 91, 89	K8	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 69	J3 - 88, 86, 84	K9	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 69	J3 - 88, 86, 84	K10	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 70	J3 - 87, 85, 83	K11	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 70	J3 - 87, 85, 83	K12	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 71	J3 - 82, 80, 78	K13	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 71	J3 - 82, 80, 78	K14	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 72	J3 - 81, 79, 77	K15	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 72	J3 - 81, 79, 77	K16	Chan B is J2 - 7, 9, 5

REGISTER: 8020h, MODE: 32 bit, BITS 16-31
REGISTER: 8022h, MODE: 16
FUNCTION: Control Matrix Pins 73-80, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 73	J3 - 76, 74, 72	K17	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 73	J3 - 76, 74, 72	K18	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 74	J3 - 75, 73, 71	K19	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 74	J3 - 75, 73, 71	K20	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 75	J3 - 70, 68, 66	K21	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 75	J3 - 70, 68, 66	K22	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 76	J3 - 69, 67, 65	K23	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 76	J3 - 69, 67, 65	K24	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 77	J3 - 64, 62, 60	K25	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 77	J3 - 64, 62, 60	K26	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 78	J3 - 63, 61, 59	K27	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 78	J3 - 63, 61, 59	K28	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 79	J3 - 58, 56, 54	K29	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 79	J3 - 58, 56, 54	K30	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 80	J3 - 57, 55, 53	K31	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 80	J3 - 57, 55, 53	K32	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 8024h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 81-88, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 81	J3 - 52, 50, 48	K33	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 81	J3 - 52, 50, 48	K34	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 82	J3 - 51, 49, 47	K35	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 82	J3 - 51, 49, 47	K36	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 83	J3 - 46, 44, 42	K37	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 83	J3 - 46, 44, 42	K38	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 84	J3 - 45, 43, 41	K39	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 84	J3 - 45, 43, 41	K40	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 85	J3 - 40, 38, 36	K41	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 85	J3 - 40, 38, 36	K42	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 86	J3 - 39, 37, 35	K43	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 86	J3 - 39, 37, 35	K44	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 87	J3 - 34, 32, 30	K45	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 87	J3 - 34, 32, 30	K46	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 88	J3 - 33, 31, 29	K47	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 88	J3 - 33, 31, 29	K48	Chan B is J2 - 7, 9, 5

REGISTER: 8024h, MODE: 32 bit, BITS 16-31
REGISTER: 8026h, MODE: 16
FUNCTION: Control Matrix Pins 89-96, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 89	J3 - 28, 26, 24	K49	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 89	J3 - 28, 26, 24	K50	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 90	J3 - 27, 25, 23	K51	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 90	J3 - 27, 25, 23	K52	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 91	J3 - 22, 20, 18	K53	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 91	J3 - 22, 20, 18	K54	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 92	J3 - 21, 19, 17	K55	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 92	J3 - 21, 19, 17	K56	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 93	J3 - 16, 14, 12	K57	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 93	J3 - 16, 14, 12	K58	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 94	J3 - 15, 13, 11	K59	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 94	J3 - 15, 13, 11	K60	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 95	J3 - 10, 8, 6	K61	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 95	J3 - 10, 8, 6	K62	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 96	J3 - 9, 7, 5	K63	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 96	J3 - 9, 7, 5	K64	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 8028h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 97-104, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 97	J3 - 4, 2, 6	K65	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 97	J3 - 4, 2, 6	K66	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 98	J3 - 3, 1, 5	K67	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 98	J3 - 3, 1, 5	K68	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 99	J4 - 100, 98, 96	K69	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 99	J4 - 100, 98, 96	K70	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 100	J4 - 99, 97, 95	K71	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 100	J4 - 99, 97, 95	K72	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 101	J4 - 94, 92, 90	K73	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 101	J4 - 94, 92, 90	K74	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 102	J4 - 93, 91, 89	K75	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 102	J4 - 93, 91, 89	K76	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 103	J4 - 88, 86, 84	K77	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 103	J4 - 88, 86, 84	K78	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 104	J4 - 87, 85, 83	K79	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 104	J4 - 87, 85, 83	K80	Chan B is J2 - 7, 9, 5

REGISTER: 8028h, MODE: 32 bit, BITS 16-31
REGISTER: 802ah, MODE: 16
FUNCTION: Control Matrix Pins 105-112, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 105	J4 - 82, 80, 78	K81	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 105	J4 - 82, 80, 78	K82	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 106	J4 - 81, 79, 77	K83	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 106	J4 - 81, 79, 77	K84	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 107	J4 - 76, 74, 72	K85	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 107	J4 - 76, 74, 72	K86	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 108	J4 - 75, 73, 71	K87	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 108	J4 - 75, 73, 71	K88	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 109	J4 - 70, 68, 66	K89	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 109	J4 - 70, 68, 66	K90	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 110	J4 - 69, 67, 65	K91	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 110	J4 - 69, 67, 65	K92	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 111	J4 - 64, 62, 60	K93	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 111	J4 - 64, 62, 60	K94	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 112	J4 - 63, 61, 59	K95	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 112	J4 - 63, 61, 59	K96	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 802ch, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 113-120, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan A, Pin 113	J4 - 58, 56, 54	K97	Chan A is J2 - 8, 10, 6
1	Chan B, Pin 113	J4 - 58, 56, 54	K98	Chan B is J2 - 7, 9, 5
2	Chan A, Pin 114	J4 - 57, 55, 53	K99	Chan A is J2 - 8, 10, 6
3	Chan B, Pin 114	J4 - 57, 55, 53	K100	Chan B is J2 - 7, 9, 5
4	Chan A, Pin 115	J4 - 52, 50, 48	K101	Chan A is J2 - 8, 10, 6
5	Chan B, Pin 115	J4 - 52, 50, 48	K102	Chan B is J2 - 7, 9, 5
6	Chan A, Pin 116	J4 - 51, 49, 47	K103	Chan A is J2 - 8, 10, 6
7	Chan B, Pin 116	J4 - 51, 49, 47	K104	Chan B is J2 - 7, 9, 5
8	Chan A, Pin 117	J4 - 46, 44, 42	K105	Chan A is J2 - 8, 10, 6
9	Chan B, Pin 117	J4 - 46, 44, 42	K106	Chan B is J2 - 7, 9, 5
10	Chan A, Pin 118	J4 - 45, 43, 41	K107	Chan A is J2 - 8, 10, 6
11	Chan B, Pin 118	J4 - 45, 43, 41	K108	Chan B is J2 - 7, 9, 5
12	Chan A, Pin 119	J4 - 40, 38, 36	K109	Chan A is J2 - 8, 10, 6
13	Chan B, Pin 119	J4 - 40, 38, 36	K110	Chan B is J2 - 7, 9, 5
14	Chan A, Pin 120	J4 - 39, 37, 35	K111	Chan A is J2 - 8, 10, 6
15	Chan B, Pin 120	J4 - 39, 37, 35	K112	Chan B is J2 - 7, 9, 5

REGISTER: 802ch, MODE: 32 bit, BITS 16-31
REGISTER: 802eh, MODE: 16
FUNCTION: Control Matrix Pins 121-128, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan A, Pin 121	J4 - 34, 32, 30	K113	Chan A is J2 - 8, 10, 6
1(17)	Chan B, Pin 121	J4 - 34, 32, 30	K114	Chan B is J2 - 7, 9, 5
2(18)	Chan A, Pin 122	J4 - 33, 31, 29	K115	Chan A is J2 - 8, 10, 6
3(19)	Chan B, Pin 122	J4 - 33, 31, 29	K116	Chan B is J2 - 7, 9, 5
4(20)	Chan A, Pin 123	J4 - 28, 26, 24	K117	Chan A is J2 - 8, 10, 6
5(21)	Chan B, Pin 123	J4 - 28, 26, 24	K118	Chan B is J2 - 7, 9, 5
6(22)	Chan A, Pin 124	J4 - 27, 25, 23	K119	Chan A is J2 - 8, 10, 6
7(23)	Chan B, Pin 124	J4 - 27, 25, 23	K120	Chan B is J2 - 7, 9, 5
8(24)	Chan A, Pin 125	J4 - 22, 20, 18	K121	Chan A is J2 - 8, 10, 6
9(25)	Chan B, Pin 125	J4 - 22, 20, 18	K122	Chan B is J2 - 7, 9, 5
10(27)	Chan A, Pin 126	J4 - 21, 19, 17	K123	Chan A is J2 - 8, 10, 6
11(28)	Chan B, Pin 126	J4 - 21, 19, 17	K124	Chan B is J2 - 7, 9, 5
12(29)	Chan A, Pin 127	J4 - 16, 14, 12	K125	Chan A is J2 - 8, 10, 6
13(30)	Chan B, Pin 127	J4 - 16, 14, 12	K126	Chan B is J2 - 7, 9, 5
14(31)	Chan A, Pin 128	J4 - 15, 13, 11	K127	Chan A is J2 - 8, 10, 6
15(32)	Chan B, Pin 128	J4 - 15, 13, 11	K128	Chan B is J2 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430

REGISTER: 8030h, MODE: 16/32 bit

FUNCTION: Control Matrix, Isolation relays, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan A, Grp 1	Chan A is J2 - 8, 10, 6	K129	Chan A is J4 - 8, 10, 6
1	Isolution Chan B, Grp 1	Chan B is J2 - 7, 9, 5	K130	Chan B is J4 - 7, 9, 5
2	Isolation Chan A, Grp 2	Chan A is J2 - 8, 10, 6	K131	Chan A is J4 - 8, 10, 6
3	Isolation Chan B, Grp 2	Chan B is J2 - 7, 9, 5	K132	Chan B is J4 - 7, 9, 5
4	Isolation Chan A, Grp 3	Chan A is J2 - 8, 10, 6	K133	Chan A is J4 - 8, 10, 6
5	Isolation Chan B, Grp 3	Chan B is J2 - 7, 9, 5	K134	Chan B is J4 - 7, 9, 5
6	Isolation Chan A, Grp 4	Chan A is J2 - 8, 10, 6	K135	Chan A is J4 - 8, 10, 6
7	Isolation Chan B, Grp 4	Chan B is J2 - 7, 9, 5	K136	Chan B is J4 - 7, 9, 5
8				
9				
10				
11				
12				
13				
14				
15				

Chapter 11 Option "M" Register Maps

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1
PCB NUMBER: 85003430-001
REGISTER: 8020h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 65-72, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan C, Pin 65	J3 - 100, 98, 96	K1	Chan C is J4 - 8, 10, 6
1	Chan D, Pin 65	J3 - 100, 98, 96	K2	Chan D is J4 - 7, 9, 5
2	Chan C, Pin 66	J3 - 99, 97, 95	K3	Chan C is J4 - 8, 10, 6
3	Chan D, Pin 66	J3 - 99, 97, 95	K4	Chan D is J4 - 7, 9, 5
4	Chan C, Pin 67	J3 - 94, 92, 90	K5	Chan C is J4 - 8, 10, 6
5	Chan D, Pin 67	J3 - 94, 92, 90	K6	Chan D is J4 - 7, 9, 5
6	Chan C, Pin 68	J3 - 93, 91, 89	K7	Chan C is J4 - 8, 10, 6
7	Chan D, Pin 68	J3 - 93, 91, 89	K8	Chan D is J4 - 7, 9, 5
8	Chan C, Pin 69	J3 - 88, 86, 84	K9	Chan C is J4 - 8, 10, 6
9	Chan D, Pin 69	J3 - 88, 86, 84	K10	Chan D is J4 - 7, 9, 5
10	Chan C, Pin 70	J3 - 87, 85, 83	K11	Chan C is J4 - 8, 10, 6
11	Chan D, Pin 70	J3 - 87, 85, 83	K12	Chan D is J4 - 7, 9, 5
12	Chan C, Pin 71	J3 - 82, 80, 78	K13	Chan C is J4 - 8, 10, 6
13	Chan D, Pin 71	J3 - 82, 80, 78	K14	Chan D is J4 - 7, 9, 5
14	Chan C, Pin 72	J3 - 81, 79, 77	K15	Chan C is J4 - 8, 10, 6
15	Chan D, Pin 72	J3 - 81, 79, 77	K16	Chan D is J4 - 7, 9, 5

REGISTER: 8020h, MODE: 32 bit, BITS 16-31
REGISTER: 8022h, MODE: 16
FUNCTION: Control Matrix Pins 73-80, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan C, Pin 73	J3 - 76, 74, 72	K17	Chan C is J4 - 8, 10, 6
1(17)	Chan D, Pin 73	J3 - 76, 74, 72	K18	Chan D is J4 - 7, 9, 5
2(18)	Chan C, Pin 74	J3 - 75, 73, 71	K19	Chan C is J4 - 8, 10, 6
3(19)	Chan D, Pin 74	J3 - 75, 73, 71	K20	Chan D is J4 - 7, 9, 5
4(20)	Chan C, Pin 75	J3 - 70, 68, 66	K21	Chan C is J4 - 8, 10, 6
5(21)	Chan D, Pin 75	J3 - 70, 68, 66	K22	Chan D is J4 - 7, 9, 5
6(22)	Chan C, Pin 76	J3 - 69, 67, 65	K23	Chan C is J4 - 8, 10, 6
7(23)	Chan D, Pin 76	J3 - 69, 67, 65	K24	Chan D is J4 - 7, 9, 5
8(24)	Chan C, Pin 77	J3 - 64, 62, 60	K25	Chan C is J4 - 8, 10, 6
9(25)	Chan D, Pin 77	J3 - 64, 62, 60	K26	Chan D is J4 - 7, 9, 5
10(27)	Chan C, Pin 78	J3 - 63, 61, 59	K27	Chan C is J4 - 8, 10, 6
11(28)	Chan D, Pin 78	J3 - 63, 61, 59	K28	Chan D is J4 - 7, 9, 5
12(29)	Chan C, Pin 79	J3 - 58, 56, 54	K29	Chan C is J4 - 8, 10, 6
13(30)	Chan D, Pin 79	J3 - 58, 56, 54	K30	Chan D is J4 - 7, 9, 5
14(31)	Chan C, Pin 80	J3 - 57, 55, 53	K31	Chan C is J4 - 8, 10, 6
15(32)	Chan D, Pin 80	J3 - 57, 55, 53	K32	Chan D is J4 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 8024h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 81-88, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan C, Pin 81	J3 - 52, 50, 48	K33	Chan C is J4 - 8, 10, 6
1	Chan D, Pin 81	J3 - 52, 50, 48	K34	Chan D is J4 - 7, 9, 5
2	Chan C, Pin 82	J3 - 51, 49, 47	K35	Chan C is J4 - 8, 10, 6
3	Chan D, Pin 82	J3 - 51, 49, 47	K36	Chan D is J4 - 7, 9, 5
4	Chan C, Pin 83	J3 - 46, 44, 42	K37	Chan C is J4 - 8, 10, 6
5	Chan D, Pin 83	J3 - 46, 44, 42	K38	Chan D is J4 - 7, 9, 5
6	Chan C, Pin 84	J3 - 45, 43, 41	K39	Chan C is J4 - 8, 10, 6
7	Chan D, Pin 84	J3 - 45, 43, 41	K40	Chan D is J4 - 7, 9, 5
8	Chan C, Pin 85	J3 - 40, 38, 36	K41	Chan C is J4 - 8, 10, 6
9	Chan D, Pin 85	J3 - 40, 38, 36	K42	Chan D is J4 - 7, 9, 5
10	Chan C, Pin 86	J3 - 39, 37, 35	K43	Chan C is J4 - 8, 10, 6
11	Chan D, Pin 86	J3 - 39, 37, 35	K44	Chan D is J4 - 7, 9, 5
12	Chan C, Pin 87	J3 - 34, 32, 30	K45	Chan C is J4 - 8, 10, 6
13	Chan D, Pin 87	J3 - 34, 32, 30	K46	Chan D is J4 - 7, 9, 5
14	Chan C, Pin 88	J3 - 33, 31, 29	K47	Chan C is J4 - 8, 10, 6
15	Chan D, Pin 88	J3 - 33, 31, 29	K48	Chan D is J4 - 7, 9, 5

REGISTER: 8024h, MODE: 32 bit, BITS 16-31
REGISTER: 8026h, MODE: 16
FUNCTION: Control Matrix Pins 89-96, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan C, Pin 89	J3 - 28, 26, 24	K49	Chan C is J4 - 8, 10, 6
1(17)	Chan D, Pin 89	J3 - 28, 26, 24	K50	Chan D is J4 - 7, 9, 5
2(18)	Chan C, Pin 90	J3 - 27, 25, 23	K51	Chan C is J4 - 8, 10, 6
3(19)	Chan D, Pin 90	J3 - 27, 25, 23	K52	Chan D is J4 - 7, 9, 5
4(20)	Chan C, Pin 91	J3 - 22, 20, 18	K53	Chan C is J4 - 8, 10, 6
5(21)	Chan D, Pin 91	J3 - 22, 20, 18	K54	Chan D is J4 - 7, 9, 5
6(22)	Chan C, Pin 92	J3 - 21, 19, 17	K55	Chan C is J4 - 8, 10, 6
7(23)	Chan D, Pin 92	J3 - 21, 19, 17	K56	Chan D is J4 - 7, 9, 5
8(24)	Chan C, Pin 93	J3 - 16, 14, 12	K57	Chan C is J4 - 8, 10, 6
9(25)	Chan D, Pin 93	J3 - 16, 14, 12	K58	Chan D is J4 - 7, 9, 5
10(27)	Chan C, Pin 94	J3 - 15, 13, 11	K59	Chan C is J4 - 8, 10, 6
11(28)	Chan D, Pin 94	J3 - 15, 13, 11	K60	Chan D is J4 - 7, 9, 5
12(29)	Chan C, Pin 95	J3 - 10, 8, 6	K61	Chan C is J4 - 8, 10, 6
13(30)	Chan D, Pin 95	J3 - 10, 8, 6	K62	Chan D is J4 - 7, 9, 5
14(31)	Chan C, Pin 96	J3 - 9, 7, 5	K63	Chan C is J4 - 8, 10, 6
15(32)	Chan D, Pin 96	J3 - 9, 7, 5	K64	Chan D is J4 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 8028h, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 97-104, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan C, Pin 97	J3 - 4, 2, 6	K65	Chan C is J4 - 8, 10, 6
1	Chan D, Pin 97	J3 - 4, 2, 6	K66	Chan D is J4 - 7, 9, 5
2	Chan C, Pin 98	J3 - 3, 1, 5	K67	Chan C is J4 - 8, 10, 6
3	Chan D, Pin 98	J3 - 3, 1, 5	K68	Chan D is J4 - 7, 9, 5
4	Chan C, Pin 99	J4 - 100, 98, 96	K69	Chan C is J4 - 8, 10, 6
5	Chan D, Pin 99	J4 - 100, 98, 96	K70	Chan D is J4 - 7, 9, 5
6	Chan C, Pin 100	J4 - 99, 97, 95	K71	Chan C is J4 - 8, 10, 6
7	Chan D, Pin 100	J4 - 99, 97, 95	K72	Chan D is J4 - 7, 9, 5
8	Chan C, Pin 101	J4 - 94, 92, 90	K73	Chan C is J4 - 8, 10, 6
9	Chan D, Pin 101	J4 - 94, 92, 90	K74	Chan D is J4 - 7, 9, 5
10	Chan C, Pin 102	J4 - 93, 91, 89	K75	Chan C is J4 - 8, 10, 6
11	Chan D, Pin 102	J4 - 93, 91, 89	K76	Chan D is J4 - 7, 9, 5
12	Chan C, Pin 103	J4 - 88, 86, 84	K77	Chan C is J4 - 8, 10, 6
13	Chan D, Pin 103	J4 - 88, 86, 84	K78	Chan D is J4 - 7, 9, 5
14	Chan C, Pin 104	J4 - 87, 85, 83	K79	Chan C is J4 - 8, 10, 6
15	Chan D, Pin 104	J4 - 87, 85, 83	K80	Chan D is J4 - 7, 9, 5

REGISTER: 8028h, MODE: 32 bit, BITS 16-31
REGISTER: 802ah, MODE: 16
FUNCTION: Control Matrix Pins 105-112, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan C, Pin 105	J4 - 82, 80, 78	K81	Chan C is J4 - 8, 10, 6
1(17)	Chan D, Pin 105	J4 - 82, 80, 78	K82	Chan D is J4 - 7, 9, 5
2(18)	Chan C, Pin 106	J4 - 81, 79, 77	K83	Chan C is J4 - 8, 10, 6
3(19)	Chan D, Pin 106	J4 - 81, 79, 77	K84	Chan D is J4 - 7, 9, 5
4(20)	Chan C, Pin 107	J4 - 76, 74, 72	K85	Chan C is J4 - 8, 10, 6
5(21)	Chan D, Pin 107	J4 - 76, 74, 72	K86	Chan D is J4 - 7, 9, 5
6(22)	Chan C, Pin 108	J4 - 75, 73, 71	K87	Chan C is J4 - 8, 10, 6
7(23)	Chan D, Pin 108	J4 - 75, 73, 71	K88	Chan D is J4 - 7, 9, 5
8(24)	Chan C, Pin 109	J4 - 70, 68, 66	K89	Chan C is J4 - 8, 10, 6
9(25)	Chan D, Pin 109	J4 - 70, 68, 66	K90	Chan D is J4 - 7, 9, 5
10(27)	Chan C, Pin 110	J4 - 69, 67, 65	K91	Chan C is J4 - 8, 10, 6
11(28)	Chan D, Pin 110	J4 - 69, 67, 65	K92	Chan D is J4 - 7, 9, 5
12(29)	Chan C, Pin 111	J4 - 64, 62, 60	K93	Chan C is J4 - 8, 10, 6
13(30)	Chan D, Pin 111	J4 - 64, 62, 60	K94	Chan D is J4 - 7, 9, 5
14(31)	Chan C, Pin 112	J4 - 63, 61, 59	K95	Chan C is J4 - 8, 10, 6
15(32)	Chan D, Pin 112	J4 - 63, 61, 59	K96	Chan D is J4 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430
REGISTER: 802ch, MODE: 16/32 bit
FUNCTION: Control Matrix Pins 113-120, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Chan C, Pin 113	J4 - 58, 56, 54	K97	Chan C is J4 - 8, 10, 6
1	Chan D, Pin 113	J4 - 58, 56, 54	K98	Chan D is J4 - 7, 9, 5
2	Chan C, Pin 114	J4 - 57, 55, 53	K99	Chan C is J4 - 8, 10, 6
3	Chan D, Pin 114	J4 - 57, 55, 53	K100	Chan D is J4 - 7, 9, 5
4	Chan C, Pin 115	J4 - 52, 50, 48	K101	Chan C is J4 - 8, 10, 6
5	Chan D, Pin 115	J4 - 52, 50, 48	K102	Chan D is J4 - 7, 9, 5
6	Chan C, Pin 116	J4 - 51, 49, 47	K103	Chan C is J4 - 8, 10, 6
7	Chan D, Pin 116	J4 - 51, 49, 47	K104	Chan D is J4 - 7, 9, 5
8	Chan C, Pin 117	J4 - 46, 44, 42	K105	Chan C is J4 - 8, 10, 6
9	Chan D, Pin 117	J4 - 46, 44, 42	K106	Chan D is J4 - 7, 9, 5
10	Chan C, Pin 118	J4 - 45, 43, 41	K107	Chan C is J4 - 8, 10, 6
11	Chan D, Pin 118	J4 - 45, 43, 41	K108	Chan D is J4 - 7, 9, 5
12	Chan C, Pin 119	J4 - 40, 38, 36	K109	Chan C is J4 - 8, 10, 6
13	Chan D, Pin 119	J4 - 40, 38, 36	K110	Chan D is J4 - 7, 9, 5
14	Chan C, Pin 120	J4 - 39, 37, 35	K111	Chan C is J4 - 8, 10, 6
15	Chan D, Pin 120	J4 - 39, 37, 35	K112	Chan D is J4 - 7, 9, 5

REGISTER: 802ch, MODE: 32 bit, BITS 16-31
REGISTER: 802eh, MODE: 16
FUNCTION: Control Matrix Pins 121-128, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0(16)	Chan C, Pin 121	J4 - 34, 32, 30	K113	Chan C is J4 - 8, 10, 6
1(17)	Chan D, Pin 121	J4 - 34, 32, 30	K114	Chan D is J4 - 7, 9, 5
2(18)	Chan C, Pin 122	J4 - 33, 31, 29	K115	Chan C is J4 - 8, 10, 6
3(19)	Chan D, Pin 122	J4 - 33, 31, 29	K116	Chan D is J4 - 7, 9, 5
4(20)	Chan C, Pin 123	J4 - 28, 26, 24	K117	Chan C is J4 - 8, 10, 6
5(21)	Chan D, Pin 123	J4 - 28, 26, 24	K118	Chan D is J4 - 7, 9, 5
6(22)	Chan C, Pin 124	J4 - 27, 25, 23	K119	Chan C is J4 - 8, 10, 6
7(23)	Chan D, Pin 124	J4 - 27, 25, 23	K120	Chan D is J4 - 7, 9, 5
8(24)	Chan C, Pin 125	J4 - 22, 20, 18	K121	Chan C is J4 - 8, 10, 6
9(25)	Chan D, Pin 125	J4 - 22, 20, 18	K122	Chan D is J4 - 7, 9, 5
10(27)	Chan C, Pin 126	J4 - 21, 19, 17	K123	Chan C is J4 - 8, 10, 6
11(28)	Chan D, Pin 126	J4 - 21, 19, 17	K124	Chan D is J4 - 7, 9, 5
12(29)	Chan C, Pin 127	J4 - 16, 14, 12	K125	Chan C is J4 - 8, 10, 6
13(30)	Chan D, Pin 127	J4 - 16, 14, 12	K126	Chan D is J4 - 7, 9, 5
14(31)	Chan C, Pin 128	J4 - 15, 13, 11	K127	Chan C is J4 - 8, 10, 6
15(32)	Chan D, Pin 128	J4 - 15, 13, 11	K128	Chan D is J4 - 7, 9, 5

DESCRIPTION: 2X64 DUAL WIRE MATRIX, DAUGHTER BOARD #1

PCB NUMBER: 85003430

REGISTER: 8030h, MODE: 16/32 bit

FUNCTION: Control Matrix, Isolation relays, Channels A, B

BIT	FUNCTION	CONNECTION (H, L, Shld.)	RELAY	COMMENT (H, L, Shld.)
0	Isolation Chan C, Grp 1	Chan C is J2 - 8, 10, 6	K129	Chan C is J4 - 8, 10, 6
1	Isolution Chan B, Grp 1	Chan D is J2 - 7, 9, 5	K130	Chan D is J4 - 7, 9, 5
2	Isolation Chan C, Grp 2	Chan C is J2 - 8, 10, 6	K131	Chan C is J4 - 8, 10, 6
3	Isolation Chan D, Grp 2	Chan D is J2 - 7, 9, 5	K132	Chan D is J4 - 7, 9, 5
4	Isolation Chan C, Grp 3	Chan C is J2 - 8, 10, 6	K133	Chan C is J4 - 8, 10, 6
5	Isolation Chan D, Grp 3	Chan D is J2 - 7, 9, 5	K134	Chan D is J4 - 7, 9, 5
6	Isolation Chan C, Grp 4	Chan C is J2 - 8, 10, 6	K135	Chan C is J4 - 8, 10, 6
7	Isolation Chan D, Grp 4	Chan D is J2 - 7, 9, 5	K136	Chan D is J4 - 7, 9, 5
8				
9				
10				
11				
12				
13				
14				
15				

Chapter 12 **Front Panel Connections**

12.1 Input Signals

CONNECTOR	H PIN	L PIN	SHLD PIN		CONNECTOR	H PIN	L PIN	SHLD PIN
J1	100	98	96		J2	100	98	96
J1	99	97	95		J2	99	97	95
J1	94	92	90		J2	94	92	90
J1	93	91	89		J2	93	91	89
J1	88	86	84		J2	88	86	84
J1	87	85	83		J2	87	85	83
J1	82	80	78		J2	82	80	78
J1	81	79	77		J2	81	79	77
J1	76	74	72		J2	76	74	72
J1	75	73	71		J2	75	73	71
J1	70	68	66		J2	70	68	66
J1	69	67	65		J2	69	67	65
J1	64	62	60		J2	64	62	60
J1	63	61	59		J2	63	61	59
J1	58	56	54		J2	58	56	54
J1	57	55	53		J2	57	55	53
J1	52	50	48		J2	52	50	48
J1	51	49	47		J2	51	49	47
J1	46	44	42		J2	46	44	42
J1	45	43	41		J2	45	43	41
J1	40	38	36		J2	40	38	36
J1	39	37	35		J2	39	37	35
J1	34	32	30		J2	34	32	30
J1	33	31	29		J2	33	31	29
J1	28	26	24		J2	28	26	24
J1	27	25	23		J2	27	25	23
J1	22	20	18		J2	22	20	18
J1	21	19	17		J2	21	19	17
J1	16	14	12		J2	16	14	12
J1	15	13	11		J2	15	13	11
J1	10	8	6					
J1	9	7	5					
J1	4	2	6					
J1	3	1	5					

CONNECTOR	H PIN	L PIN	SHLD PIN		CONNECTOR	H PIN	L PIN	SHLD PIN
J3	100	98	96		J4	100	98	96
J3	99	97	95		J4	99	97	95
J3	94	92	90		J4	94	92	90
J3	93	91	89		J4	93	91	89
J3	88	86	84		J4	88	86	84
J3	87	85	83		J4	87	85	83
J3	82	80	78		J4	82	80	78
J3	81	79	77		J4	81	79	77
J3	76	74	72		J4	76	74	72
J3	75	73	71		J4	75	73	71
J3	70	68	66		J4	70	68	66
J3	69	67	65		J4	69	67	65
J3	64	62	60		J4	64	62	60
J3	63	61	59		J4	63	61	59
J3	58	56	54		J4	58	56	54
J3	57	55	53		J4	57	55	53
J3	52	50	48		J4	52	50	48
J3	51	49	47		J4	51	49	47
J3	46	44	42		J4	46	44	42
J3	45	43	41		J4	45	43	41
J3	40	38	36		J4	40	38	36
J3	39	37	35		J4	39	37	35
J3	34	32	30		J4	34	32	30
J3	33	31	29		J4	33	31	29
J3	28	26	24		J4	28	26	24
J3	27	25	23		J4	27	25	23
J3	22	20	18		J4	22	20	18
J3	21	19	17		J4	21	19	17
J3	16	14	12		J4	16	14	12
J3	15	13	11		J4	15	13	11
J3	10	8	6					
J3	9	7	5					
J3	4	2	6					
J3	3	1	5					

12.2 OUTPUT SIGNALS

12.2.1 128 x 2 MATRIX (90400650)

CHANNEL	CONNECTOR	H PIN	L PIN	SHLD PIN
A	J2	10	8	6
B	J2	9	7	5

12.2.2 DUAL 64x2 MATRIX (90400650-001

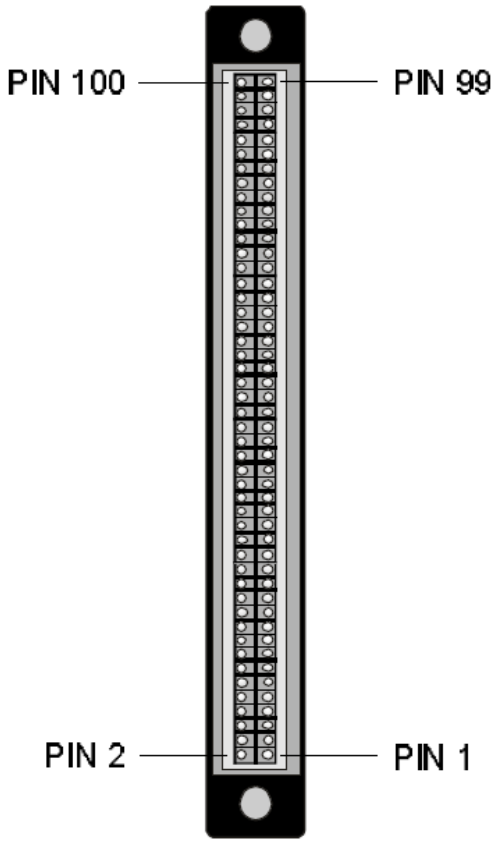
FIRST 64x2 MATRIX (INPUTS ON J1 & J2)

CHANNEL	CONNECTOR	H PIN	L PIN	SHLD PIN
A	J2	10	8	6
B	J2	9	7	5

SECOND 64x2 MATRIX (INPUTS ON J3 & J4)

CHANNEL	CONNECTOR	H PIN	L PIN	SHLD PIN
A	J4	10	8	6
B	J4	9	7	5

Typical pin configuration for connectors J1, J2, J3 and J4



12.2.3 128 x 2 MATRIX (90400650 –101) – Extra Output Connections

CHANNEL	CONNECTOR	H PIN	L PIN	SHLD PIN
A	J2	10	8	6
A	J4	10	8	6
B	J2	9	7	5
B	J4	9	7	5

NOTES :

1. Inputs on J1 & J2 are for the first 64x2 matrix OR one half of the 128x2 matrix.
   Inputs on J3 & J4 are for the second 64x2 Or the second half of the 128x2 matrix.
2. The "H PIN" and the " L PIN" constitute the two wire (e.g. differential) input or output signal.
   The "SHLD PIN" is the connection to the shield or analog ground associated with the particular H/L signal.